Animal and Dairy Science Department
Rhodes Center for Animal & Dairy Science

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GEORGIA DAIRYFAX

http://www.ces.uga.edu/Agriculture/asdsvm/Dairyscience/dairypage.HTML March/April 2005

Dear Dairy Producers:

The enclosed information was prepared by the University of Georgia Animal and Dairy Science faculty & graduate students in Dairy Extension, Research & Teaching. We trust this information will be helpful to dairy farmers and dairy related businesses for continued improvement of the Georgia Dairy Industry.

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Sincerely,

Wm. Graves

William M. Graves
Professor & Extension Dairy Scientist

County Extension Director or County Agent

/ach

DAIRYFAX NEWSLETTER

The University of Georgia Animal and Dairy Science Department Production Sale for Undergraduate Teaching.

By Dr. Lane O. Ely
Extension Diary Scientist

The second production sale for the undergraduate teaching in the Animal and Dairy Science Department was held at the ADS Livestock Arena on March 9, 2005. A large crowd attended and enthusiastically participated in the sale. We would like to thank those who took part in the sale of the six dairy heifers. The proceeds will help the UGA Teaching Dairy meet its classroom activities.

Got Heats? Learn to Look for the Right Signs

By Dr. William M. Graves
Professor & Extension Dairy Specialist

More than 90 percent of your cows should have shown heat by 50 days postpartum. Cows should be cycling every 21 days by that time. The most reliable sign a cow is in heat is a stand to be mounted by another cow. Each stand lasts only 4 to 6 seconds. Cows average about 1½ mounts per hour and are in heat 15 hours.

Therefore, cows are only in heat a little more than half a day and only spend a total of 3 to 5 minutes actually standing to be mounted. It is easy to understand why you must observe for heat several times throughout the day. Also, you should look for and record secondary signs of heat. These include:

- mounting other cows
- clear mucous discharge
- chin resting and rubbing
- swollen, red vulva, frequent urination
- muddy flanks and ruffled tailhead
- bawling, restlessness, sniffing behavior
- decreased milk production and off feed

All of these can be indications that a cow is in heat, coming into heat or going out of heat. The decision to breed should be based on standing to be mounted by another cow, not on secondary signs of heat. However, of all the secondary signs, a clear mucus discharge has been reported to be one of the most meaningful signs of heat.

Herdmates play an important role in a heat detection program. Pregnant cows or those in the early half of their cycle do not make good heat detectors. Cows in heat or cows coming into or going out of heat make excellent detectors.

Prostaglandins can help bring groups of animals in heat, drastically increasing the number of mounts per heat period and making it easier to catch animals in heat. Ovulation synchronization can allow you to breed cows with a timed insemination, thus elimination some of the need to detect heats. Open cows must still be identified.

Several aids are available to producers. The most popular is the pressure sensitive heat mount detectors. They are activated after 4 to 5 seconds of continuous pressure. Also, tailheads can be marked several times a week with chalk or crayons, or bi-monthly with paint. Producers can then monitor painted tailheads for rubbing activity. Adverse weather conditions and high humidity can affect overall results obtained.

Think how much you could save by seeing more heats, getting animals bred sooner after calving and lowering the intervals between calves in your herd. Don't use a herd bull because they are convenient and efficient. Genetically and from a safety standpoint, this is a bad management decision. More importantly, get as much done as you can before it gets any hotter and conception rates decline across the southeast.

Dates to Remember:

May 10 & 11- Certified Planner Training, Farm Bureau Building, Macon

June 9& 10- Animal Science in Action, University of Georgia, Athens

The Price of Silage

By Dr. Lane O Ely
Extension Animal Scientist

Now dairy producers are looking to buy silage as they increase herd size and have reduced home grown forage suppliers. The opportunity to focus on dairy herd is another reason dairy producers are looking to produce silage. Many crop producers are looking to sell their crop as silage because with low grain prices, the silage may be worth more than the grain. It is necessary for the parties (buyers and seller) to agree on a price. There are no hard and fast rules as to the worth of the crop, but the rule of supply and demand do take effect.

I would like to list some guidelines that I believe both sides must consider in order to reach an agreement that is satisfactory.

1. The dairyman must determine a nutritive value for the silage to be purchased. We will use corn silage in this example as the silage to be evaluated. The nutritive value would be the value of the silage in the feed trough for the dairy cow to eat. Using a ration balancing program, one can calculate this value. Using the feed ingredients available, their prices and the requirements for production, the value can be calculated for a particular farm and feeding program. This price is not constant but will change with different feeds and prices that are available to be fed to the herd.

In the example, corn silage would be valued at $34.50/ton in the ration. This would be considered the top price a producer would pay as another feed could replace the nutrients supplied by the silage. To get a supply of supply of silage, a premium may have to be added to the top price.

2. The crop farmer needs to calculate his cost for putting in the crop and growing it to harvest stage. This would include land preparation, seed, fertilizer, cultivation, herbicide, pesticide and irrigation. For example, if these costs were $300/acre planted and if estimated silage yield is 20 tons, then $15,00/ton would be considered the bottom price the crop farmer would accept or this is his break-even cost. Remember this is not his normal cost of production because we have not included combining or drying costs.

With these two prices ($34.50/ton and $15.00/ton), we have a range for negotiating a final price.

3. Factors needed for this negotiation would include harvesting cost for silage, hauling to the silo and the cost of felling the silo. One also has to figure about a 10% loss due to fermentation and a 5% loss during the feed out. These values will vary with the type of silo and crop being ensiled.

In our example, if the dairy farmer is going to do the harvesting and filling he would have to figure those costs. This may be $2.10/ton for 20 tons harvested. Distance to the silo needs to be figured as different fields may have different costs. Our hauling and packing would be $1.00/ton. A 10% fermentation loss for our $34.50 value would be $3.45/ton and a 5% feed out loss would be $1.72/ton. The value per ton for the standing crop in the field would be: $34.50-($2.10+$1.00+$3.45+$1.72)=$26.23/ ton.

This now represents the top price for the standing crop in the field that would be delivered to the feed trough.

The dairyman and crop farmer need to agree on a price per ton between $15.00 and $26.23, realizing that both can make a profit. They will also have to agree on how yield is calculated if there will be any adjustment for moisture and nutrient composition.

If a crop grower is selling to several farmers, he will want to have a sample pricing scheme that would offer the same price to everyone. Many silage sellers use a price based on moisture content. For example, at 30% dry matter the silage price is $30.00/ ton. If the day matter % varies up or down the price would be adjusted. If the price was $.50/1 unit of dry matter, the 26% dry matter silage would be $28/ ton and 40% dry matter silage would be $35/ton. This may be necessary if there are wide variations in dry matter content.

Another sample price structure is to multiply the price of grain /bushel times 10 to get the silage price. For the dairyman, this often does not reflect the nutritive value of the silage. For the crop farmer, this may drastically under value the silage during time of excess grain production.

Guidelines can be established to set a price range for silage, but negotiations and supply and demand will set the final price. The parties need to discuss the price and recognize the other's view point to arrive at a fair price.

Why a Heat is Not Observed After a Prostaglandin Injection

By Dr. William M. Graves
Professor & Extension Dairy Specialist

Sometimes a cow isn't detected in heat after she has been injected with prostaglandin to induce heat. Ever wonder why? Dr. Steve Milliken, a Lancaster County veterinarian, offered the following 10 possible reasons. I took the liberty of modifying them a little.

10. Shot is given at the wrong stage of the cycle. The corpus luteum (CL) is responsive to prostaglandin from about day 7 to 17 after the previous heat.

9. Cows with cystic ovaries (follicular cysts) do not respond to prostaglandin.

8. Cows not cycling (functionally anestrus), usually due to a nutritional deficiency, do not respond to prostaglandin.

7. Cows not let out of stalls in stanchion/tie-stall barns show poor heat activity. Perhaps they should move to Georgia?

6. Poor footing in exercise area. Cows on smooth concrete surfaces show poor heats; grooved concrete will improve heat activity; ground or pasture will make it even better.

5. Lame cows. Poor cow comfort, foot rot, hairy heal warts, laminitis or hooves in need of trimming all can keep a cow from displaying heat.

4. Heat and the single cow. One cow in heat may not attract any mounting behavior. Several cows in heat will result in more interaction.

3. She just does not want to. Some cows simply don't show good heats, even if they go through an estrous period.

2. Inadequate heat observation. Once-a-day observation will result in about 50 percent of heats detected; twice a day, 70 percent; three or more times a day, over 90 percent. Observation should be continuous for 15 to 20 minutes.

1. Nothing works 100 percent of the time. As good as prostaglandin is, it is not 100%.

Decreasing The Dose of GnRH Used in Ovulation Synchronization?

Dr. William Graves
Professor & Extension Dairy Specialist

Through the use of ultrasonography, follicular development studies have resulted in a new method for synchronization of ovulation (Ovsynch). Many Georgia producers refer to this procedure as "C-L-C." This is based on the trade names and sequence of the hormones used (Cystorelin-Lutalyse-Cystorelin). Two injections of GnRH, 7 days before and 2 days after prostaglandin (PGF2∝), will effectively synchronize ovulation in more than 90 percent of lactating cows treated. Time of ovulation occurs 24 to 32 hours after the second injection of GnRH.

There is data indicating that doses of 50 µg of GnRH may be as effective as the standard protocol's 100 µg. This lower dosage will lower costs. It is important when trying the lower dosage to use a 20 gauge ½ inch needle with the GnRH and get the entire dose in the animal. Our group completed a study to determine the effectiveness of decreasing the dose of GnRH (Cystoreline®, Merial Limited, Duluth, GA) used in the ovulation synchronization (Ovsynch) protocol. First service lactating Holstein cows (n=100) at the University of Georgia Dairy Center in Athens were randomly assigned to 1 of 4 treatment groups. All cows received 25 mg of PGF2∝ (Lutalyse®, Pfizer Animal Health, New York, NY) 11 days (d-11) prior to starting Ovsynch. Cows in treatment 1 received 100 µg GnRH on day 0, 25 mg PGF2∝ on day 7, and 100 µg GnRH on day 9. Treatment 2 received 50 µg GnRH on day 0, 25 mg PGF2∝ on day 7, and 100 µg GnRH on day 9. Treatment 3 received 100 µg GnRH on day 0, 25 mg PGF2∝ on day 7, and 50 µg GnRH on day 9. Treatment 4 received 50 µg GnRH on day 0, 25 mg PGF2∝ on day 7, and 50 µg GnRH on day 9.

Blood samples were collected on days -11 and 0 for progesterone analysis. All cows were artificially inseminated (AI) 16-20 hours after the second GnRH injection. Pregnancy was checked via ultrasound at 35-40 days and 55-60 days after AI.

The 100 cows averaged 2.3 lactations, 68 days in milk and 88 lb of milk on DHIA. Pregnancy rates at 35-40 days were 52%, 32%, 44%, and 56% for treatments 1, 2, 3, & 4 respectively. At 55-60 days, the rates were 36%, 28%, 36%, and 48%. Embryonic losses between day 40 and 60 were 16%, 4%, 8%, & 8%. Overall pregnancy rates were 46% at 40 days and 37% at 60 days. A total of 14 of the 100 cows were considered to be noncyclic (both blood samples < 1.0 ng/ml progesterone) and only 2 of these were pregnant at 35-40 days versus 44 of the 86 cyclic cows (either or both samples > or = 1.0 ng/ml).

A total of 28.8% of 28 were pregnant at 55-60 days when the highest temperature-humidity index (THI) on the day bred was >or =80, 45.2% of 31 when the THI was between 70-79 and 36.6% of 41 when the THI high was 69 or <. During the 11 months of this study, days open on DHIA decreased 34 days.

A comparison of hormone cost per cow and per pregnancy for each of the four treatment groups is shown below. GnRH cost per cow was $6.80 less for treatment 4 (half/half)

versus treatment 1 (full/full). GnRH cost per pregnancy decreased by $23.61 from treatment 1 (full/full) to treatment 4 (half/half). PGF cost per cow was the same for all four treatment groups since all cows received 25 mg of PGF. However, PGF cost per pregnancy was less for treatment 4 (half/half) than for any of the others due to the higher pregnancy rate in that group. Total hormone cost per cow was $16.60 for treatment 1 (full/full) versus $9.80 for treatment 4 (half/half). This was a reduction of $6.80 in hormone cost per cow. The reduction in hormone cost per pregnancy with treatment 4 (half/half) was even more substantial. In treatment 4 (half/half) total hormone cost per pregnancy was only $20.21 compared to $46.11 in treatment 1 (full/full). Treatment 2 (half/half) was actually the most expensive in terms of cost per pregnancy with a total cost of $47.14. The reduction in cost per pregnancy from using two 50 µg doses of GnRH instead of two 100 µg doses was $25.70.

Comparison of Costs of Hormones and Pregnancies for Each Treatment Group

Item	Treatment 1 Full/Full	Treatment 2 Half/Half	Treatment 3 Full/Half	Treatment 4 Half/Half
#Pregnant 60 days post AI	9	7	9	12
GnRH $/cow	13.60	10.20	10.20	6.80
GnRH $/pregnancy*	37.78	36.43	28.33	14.17
PGF $/cow	3.00	3.00	3.00	3.00
PGF $/pregnancy*	8.33	10.71	8.33	6.25
Total hormone $/cow	16.60	13.20	13.20	9.80
Total hormone $/pregnancy*	46.11	47.14	36.67	20.41

*Cost per pregnancy was calculated as total hormone cost for treatment group divided by the number of cows pregnant at 60 days post AI. Each group contained 25 cows.

Using the half/half dose technique provides us the opportunity to breed all animals treated at a designated time and at lower costs. To maintain effectiveness, animals should be bred 8 to 18 hours after the second GnRH injection. Note that animals between day 5 to 12 of their cycle respond best to Ovysynch. Additionally, heifers do not respond as well to this treatment because of possible differences in follicular waves.

It is important to note that administering two injections of PGF 14 days apart and 12 days prior to initiating the Ovysynch protocol has been shown to improve pregnancy rates in studies at Florida and Kansas. This program is referred to as the Presynch Program (L-L-C-L-C in Georgia?).

It is also important to note that although it is not necessary to see animals in standing heat for them to be inseminated with this protocol, some animals will display heat after the first two injections. Breeding these animals on detected heat prior to the last GnRH injection will lower costs. Also, open animals will return to estrus and should be watched as well. Resynching works well for many producers.

This study was paid for through the support of the Florida-Georgia Dairy Research Check Off Program. If you have been reluctant to try Ovysynch because of the costs, this fall you may want to give a low dose procedure a try.

ANIMAL SCIENCE IN ACTION
JUNE 9-10, 2005

...A SUMMER INTRODUCTION TO THE ANIMAL AND DAIRY SCIENCE DEPT., ANIMAL SCIENCE MAJORS, INCLUDING PRE-VET

You are invited to participate on June 9-10, 2005 in our introductory program for high school students at UGA. Animal Science in Action is a 2 day program designed for rising high school juniors and seniors with an interest in a Bachelor of Science degree and career in the animal science field. The University of Georgia Animal and Dairy Science Department encompasses science and hands-on learning opportunities with beef and dairy cattle, horses, swine, and sheep. A degree in animal science can lead to a great variety of careers including sales in feed and pharmaceuticals, Extension and other instructional roles, meats industry options, or many of the supportive roles in the livestock industry. Animal and Dairy Science degrees also can be tailored to satisfy pre-requisites for Veterinary or Graduate School.

High school students come to UGA to engage in a series of labs and experiences that gives them a "feel" for the Animal and Dairy Science program. Groups visit each of the main teaching farms for hands-on activities with the animals and other UGA sites. Students stay in a UGA dormitory to experience dorm life. Current Animal Science students lead various activities and interact with the students to share the opportunities available at UGA in Animal Science. The program starts mid-morning on Thursday and ends mid afternoon of the next day. Parents are invited to attend, especially the opening and closing sessions that involve important admissions and scholarship information.

Application deadline is May 15, 2005. The event costs $60.00/student. High school students should provide PSAT or SAT scores and be a rising junior or senior. We encourage you to get your application in today!

For more information contact Dr. Bill Graves (706-542-9106), Dr. Josie Coverdale (706-543-0398) or Dr. Ronnie Silcox (706-542-9102).

ANIMAL SCIENCE IN ACTION

June 9-10, 2005

Application Due May 15, 2005

Name: _____ High School Graduation Year: _____

Address: _____ High School Grade Point Average:____

_____ PSAT or SAT Score (Circle One) _____

Social Security Number: _____ Telephone Number: _____

County: _____ T-Shirt Size (free!) M L X XL XXL
Check One: Male: _____ Female: _____

Youth Livestock Activities: _____
_____
_____

High School and Other Activities: _____
_____
_____

Honors and Awards: _____
_____
_____

Career Interest: _____
_____
_____

Main Species Interest (Check all that apply) Beef _____ Swine _____ Sheep _____
Dairy _____ Horse _____

Please return this form to: Dr. William Graves
UGA Animal & Dairy Science Department
Animal Science in Action
Animal and Dairy Science Complex
Athens, GA 30602-2771
Telephone: (706) 542-9106 Fax: (706) 542-9316

Cost: $60.00. Make check payable to "Georgia 4-H Foundation".
(Office Use Only) Date this application was received _____

TOP 20 DHIA HERDS BY TEST DAY MILK PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Vista Farms	Jefferson	H	1	88	94	79.7	3.5	2.80	22818	3.5	794	3.0	686
Dave Clark	Morgan	H	1	854	89	77.1*	3.4	2.61	25178	3.3	828	2.9	742
Gin Branch Farm	Laurens	H	1	63	94	76.3*	3.0	2.26	22616	3.6	815	3.0	683
Williams Dairy	Morgan	H	1	516	90	74.7*	3.7	2.73	25980	3.9	1004	3.0	777
Rodgers' Hillcrest Farms Inc.	McDuffie	H	1	392	90	74.1	3.0	2.20	21992	3.4	758	3.0	666
Agri-Fresh Dairy	Laurens	H	1	200	91	73.2*	3.3	2.42	23786	3.2	756	3.0	702
Martin Dairy L.L.P.	Hart	H	1	285	85	69.7	3.3	2.32	22114	3.6	800	3.0	659
Mark E. Yoder	Macon	H	1	113	90	69.3	3.1	2.18	22244	3.4	752	3.1	684
Krulic Dairy Farm, Inc.	Screven	H	1	121	92	69.2	3.6	2.49	23364	3.8	880	3.1	718
Andy Wheat	Morgan	H	1	151	96	69.1	3.6	2.51	19041	3.4	645	2.9	560
Scott Glover	White	H	1	89	93	68.9	4.0	2.76	22114	3.9	854	3.0	658
Ray Ward Dairy	Putnam	H	1	139	90	68.9	4.0	2.74	20992	3.8	804	2.9	615
Kent Walker	Greene	H	1	119	96	68.4	4.0	2.77	20603	3.6	736	2.9	590
Ed Boehs	Jefferson	H	1	102	89	67.6	3.8	2.54	20640	3.7	766	3.1	632
Lawayne Weaver	Macon	H	1	133	88	67.3*	3.9	2.63	18828	3.2	715	3.2	600
Conlin Dairy	Burke	H	1	108	94	67.3	3.3	2.20	18825	3.2	605	2.9	552
Brooksco Dairy	Brooks	H	1	2366	89	67.1*			21817				
Olin Reed	Lincoln	H	1	171	92	66.7			19324				
Gene Bowen	Pierce	H	1	212	92	65.5*			18576				
Louis Yoder	Macon	H	1	113	90	64.1	2.9	1.89					

cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*), indicates herd was milked three times per day (3X).

Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC).

TOP 20 DHIA HERDS BY TEST DAY FAT PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Vista Farms	Jefferson	H	1	88	94	79.7	3.5	2.80	22818	3.5	794	3.0	686
Kent Walker	Greene	H	1	119	96	68.4	4.0	2.77	20603	3.6	736	2.9	590
Scott Glover	White	H	1	89	93	68.9	4.0	2.76	22114	3.9	854	3.0	658
Ray Ward Dairy	Putnam	H	1	139	90	68.9	4.0	2.74	20992	3.8	804	2.9	615
Williams Dairy	Morgan	H	1	516	90	74.7*	3.7	2.73	25980	3.9	1004	3.0	777
Lawayne Weaver	Macon	H	1	133	88	67.3*	3.9	2.63	18828	3.8	715	3.2	600
Dave Clark	Morgan	H	1	854	89	77.1*	3.4	2.61	25178	3.3	828	2.9	742
Ed Boehs	Jefferson	H	1	102	89	67.6	3.8	2.54	20640	3.7	766	3.1	632
Andy Wheat	Morgan	H	1	151	96	69.1	3.6	2.51	19041	3.4	645	2.9	560
Krulic Dairy Farm, Inc.	Screven	H	1	121	92	69.2	3.6	2.49	23364	3.8	88.	3.1	718
Martin Dairy L.L.P	Hart	H	12	289	84	63.8	3.9	2.48	21879	3.6	793	3.0	654
Andy Wheat	Morgan	H	12	152	89	61.5	4.0	2.44	18811	3.4	632	2.9	551
David L Moss	Morgan	H	1	114	84	56.8	4.3	2.44	19016	4.3	811	3.0	576
David L Moss	Morgan	H	12	113	81	55.2	4.4	2.44	18841	4.3	801	3.0	572
Agri-Fresh Dairy	Laurens	H	1	200	91	73.2*	3.3	2.42	23786	3.2	756	3.0	702
Roberts Dairy Inc	Jones	H	1	145	91	61.6	3.9	2.42	17130	4.0	690	3.1	535
Martin Dairy L.L.P.	Hart	H	1	285	85	69.7	3.3	2.32	22114	3.6	800	3.0	659
Ray Lovett	Peirce	H	12	383	85	64.0*	3.6	2.30	21057	3.1	655	3.0	627
Aurora Dairy Georgia-LLC	Mitchell	H	1	3342	83	58.2*	3.9	2.28	20275	3.8	765	3.0	612
Anthony's Dairy	Sumter	H	1	863	88	59.3*	3.8	2.27	20702	3.9	807	2.9	608

[1]Minimum herd size of 10 cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*), indicates herd was milked three times per day (3X).
Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC).

TOP 20 DHIA HERDS BY TEST DAY MILK PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Vista Farm	Jefferson	H	2	86	99	82.9	3.5	2.87	23183	3.5	805	3.0	695
Dave Clark	Morgan	H	2	850	92	82.8*	3.2	2.64	25257	3.3	833	2.9	744
Williams Dairy	Morgan	H	2	128	96	79.6	3.7	2.93	22019	3.6	796	3.0	655
Cecil Dueck	Jefferson	H	2	65	100	78.7	3.7	2.93	23451	3.7	862	3.0	701
Williams Dairy	Morgan	H	2	517	92	78.1*	3.6	2.85	26013	3.8	997	3.0	782
Rodger's Hillcrest Farms Inc.	McDuffie	H	2	384	95	77.0	3.0	2.29	22386	3.4	756	3.0	677
Agri-Fresh Dairy	Laurens	H	2	207	93	75.8*	3.2	2.44	23876	3.2	765	3.0	707
Martin Dairy L.L.P.	Hart	H	2	299	94	75.7	3.6	2.71	22347	3.6	802	3.0	666
Ray Lovett	Peirce	H	1	368	90	73.2*	3.5	2.59	21215	3.1	667	3.0	633
Lee Whitaker	McDuffie	H	2	385	95	73.0	3.5	2.54	20803	3.6	750	3.1	636
Earnest R Turk	Putnam	H	2	374	98	72.4	3.8	2.77	21550	4.0	872	3.0	657
Gene Bowen	Pierce	H	2	212	96	71.7*			18806				
Ray Ward Dairy	Putnam	H	2	137	93	71.4	3.6	2.57	21014	3.8	799	2.9	617
Anthony's Dairy	Sumter	H	2	848	90	71.0*	3.9	2.75	20815	3.9	807	2.9	611
Larry Moody	Ware	H	2	951	89	71.0			21690				
Mark D Brenneman and Sons	Macon	H	2	117	92	70.1	3.0	2.08	19094	3.4	644	3.1	591
Lawayne Weaver	Macon	H	2	143	97	69.9	3.6	2.49	19261	3.8	727	3.2	613
Ed Boehs	Jefferson	H	2	107	94	69.5	3.7	2.56	21035	3.7	783	3.1	646
Krulic Dairy Farm, Inc.	Screven	H	2	122	90	69.1	3.9	2.70	23583	3.7	883	3.1	727
Conlin Dairy	Burke	H	2	106	95	68.1	2.8	1.89	19021	3.2	607	2.9	557

cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*), indicates herd was milked three times per day (3X).

Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC).

TOP 20 DHIA HERDS BY TEST DAY FAT PRODUCTION

					Test Day Average				Yearly Average				
							Fat			Fat		Protein	
Herd	County	Br.	Mo.	Cows	% Days in Milk	Milk	%	Lbs.	Milk	%	Lbs.	%	Lbs.
Berry College Dairy	Floyd	J	2	28	93	63.4	5.3	3.35	18678	5.0	936	3.6	666
Earnest R Turk	Putnam	H	1	374	94	68.0	4.4	3.00	21356	4.1	866	3.0	649
Williams Dairy	Morgan	H	2	128	96	79.6	3.7	2.93	22019	3.6	796	3.0	655
Copelan	Putnam	H	2	38	89	54.2	5.4	2.93	19043	3.5	660	3.0	563
Cecil Dueck	Jefferson	H	2	65	100	78.7	3.7	2.89	23451	3.7	862	3.0	701
Vista Farms	Jefferson	H	2	86	99	82.9	3.5	2.87	23183	3.5	805	3.0	695
Williams Dairy	Morgan	H	2	517	92	78.1*	3.6	2.85	26013	3.8	997	3.0	782
Earnest R Turk	Putnam	H	2	374	98	72.4	3.8	2.77	21550	4.0	872	3.0	657
Anthony's Dairy	Sumter	H	2	848	90	71.0*	3.9	2.75	20815	3.9	807	2.9	611
Martin Dairy L.L.P	Hart	H	2	299	94	75.7	3.6	2.71	22347	3.6	802	3.0	666
Scott Glover	White	H	2	92	90	67.3	4.0	2.71	22230	3.9	856	3.0	661
Krulic Dairy Farm, Inc.	Screven	H	2	122	90	69.1	3.9	2.70	23583	3.7	883	3.1	727
Dave Clark	Morgan	H	2	850	92	82.8*	3.2	2.64	25257	3.3	833	2.9	744
Kent Walker	Greene	H	1	117	97	66.8	3.9	2.61	20752	3.6	749	2.9	593
Ray Lovett	Pierce	H	1	368	90	73.2*	3.5	2.59	21215	3.1	667	3.0	633
Ray Ward Dairy	Putnam	H	2	137	93	71.4	3.6	2.57	21014	3.8	799	2.9	617
Ed Boehs	Jefferson	H	2	107	94	69.5	3.7	2.56	21035	3.7	783	3.1	646
J B Gay & Son	Jenkins	H	2	295	95	64.4	4.0	2.56	20907				
David L Moss	Morgan	H	2	120	89	61.9	4.1	2.55	19319	4.3	822	3.0	583
Lee Whittaker	McDuffie	H	2	385	95	73.0	3.5	2.54	20803	3.6	750	3.1	636

[1]Minimum herd size of 10 cows. Yearly average calculated after 365 days on test. (Mo.) column indicates month of test. Test day milk, marked with an asterisk (*), indicates herd was milked three times per day (3X).

Information in this table is complied from Dairy Records Management Systems Reports (Raleigh, NC).